



Burden of disease and health status among Hurricane Katrina-displaced persons in shelters: A population-based cluster sample

Author(s): Greenough PG, Lappi MD, Hsu EB, Fink S, Hsieh YH, Vu A, Heaton C, Kirsch TD
Year: 2008
Journal: Annals of Emergency Medicine. 51 (4): 426-432

Abstract:

STUDY OBJECTIVE: Anecdotal evidence suggests that the population displaced to shelters from Hurricane Katrina had a significant burden of disease, socioeconomic vulnerability, and marginalized health care access. For agencies charged with providing health care to at-risk displaced populations, knowing the prevalence of acute and chronic disease is critical to direct resources and prevent morbidity and mortality. **METHODS:** We performed a 2-stage 18-cluster sample survey of 499 evacuees residing in American Red Cross shelters in Louisiana 2 weeks after landfall of Hurricane Katrina. In stage 1, shelters with a population of more than 100 individuals were randomly selected, with probability proportional to size sampling. In stage 2, 30 adult heads of household were randomly chosen within shelters by using a shelter log or a map of the shelter where no log existed. Survey questions focused on demographics, socioeconomic indicators, acute and chronic burden of disease, and health care access. **RESULTS:** Two thirds of the sampled population was single, widowed, or divorced; the majority was female (57.6%) and black (76.4%). Socioeconomic indicators of under- and unemployment (52.9%), dependency on benefits or assistance (38.5%), lack of home ownership (66.2%), and lack of health insurance (47.0%) suggested vulnerability. One third lacked a health provider. Among those who arrived at shelters with a chronic disease (55.6%), 48.4% lacked medication. Hypertension, hypercholesterolemia, diabetes, pulmonary disease, and psychiatric illness were the most common chronic conditions. Risk factors for lacking medications included male sex (odds ratio [OR] 1.58; 95% confidence interval [CI] 0.96 to 2.59) and lacking health insurance (OR 2.25; 95% CI 1.21 to 4.20). More than one third (34.5%) arrived at the shelter with symptoms warranting immediate medical intervention, including dehydration (12.0%), dyspnea (11.5%), injury (9.4%), and chest pain (9.7%). Risk factors associated with presenting to shelters with acute symptoms included concurrent chronic disease with medication (OR 2.60; 95% CI 1.98 to 3.43), concurrent disease and lacking medication (OR 2.22; 95% CI 1.36 to 3.63), and lacking health insurance (OR 1.83; 95% CI 1.10 to 3.02). **CONCLUSION:** A population-based understanding of vulnerability, health access, and chronic and acute disease among the displaced will guide disaster health providers in preparation and response.

Source: <http://dx.doi.org/10.1016/j.annemergmed.2007.04.004>

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change;
 surveys of attitudes, knowledge, beliefs about climate change

Climate Change and Human Health Literature Portal

A focus of content

Communication Audience:

audience to whom the resource is directed

Health Professional

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Human Conflict/Displacement

Extreme Weather Event: Hurricanes/Cyclones

Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal

Geographic Location:

resource focuses on specific location

United States

Health Impact:

specification of health effect or disease related to climate change exposure

Injury

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Medical Community Engagement:

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type:

Climate Change and Human Health Literature Portal



format or standard characteristic of resource

Research Article

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content